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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group

Art Unit:

3643

Attorney

Docket No.:

121056-028 (new)

Applicant:

Yasushi KOHNO

Invention:

METHOD OF PREVENTING DEFECTIVE GERMINATION OR ROSETTE

FORMATION OF SEED

Serial No:

10/007,186

Filed:

November 5, 2001

Examiner:

Andrea Valentini

Certificate Under 37 CFR 1.8(a)

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on

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REPLY BRIEF

AUG 1 1 2803 GROUP 3000

Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer mailed June 2, 2003 in connection with the above-identified application, appellant is submitting herewith under separate cover as required under the procedures set forth in MPEP §1208.03 an amendment to claim 1.

This amendment is believed to be proper because of an indefiniteness issue which was newly raised by the Examiner in the Examiner's Answer and because of the new manner in which the Examiner is interpreting the prior art as teaching processing the seed in the "dark."

Appellant further submits the following reply:

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NEW ISSUES RAISED BY THE EXAMINER

The Examiner raised the following new issues in the Examiner's Answer:

- 1. On page 3 of the Examiner's Answer the Examiner has stated that "Badiu et al teaches that the seeds are soaked in water in a dark place since dark is a relative term that can be defined as low light or not light and has not been clearly defined in applicant's specification."
- 2. On page 4 of the Examiner's Answer the Examiner has taken the position that the "vat/dish" of Badiu et al. "is inherently a dark place because it will have a reduced amount of light then what the seeds would receive when exposed to natural sunlight.
- 3. On page 4 of the Examiner's Answer the Examiner has taken the position that during the palletizing step the seeds are introduced into the palletizing equipment and therefore are inherently being dried in a dark place.
- 4. On page 4 of the Examiner's Answer the Examiner has stated that: "Smith discusses legumes, but the art is still a valid application since it is notoriously old and well-known in the art that all kinds of different plant species and morphologies inbib water to germinate and all will stop germinating when dried."

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- 5. On page 4 of the Examiner's Answer the Examiner has stated that "Smith was included to illustrate that drying after soaking helps with germination even more."
- 6. On page 5 of the Examiner's Answer the Examiner has stated that since Job et al. does not expressly state the benefits of the drying step in terms of germination, "the teachings of Smith were introduced as an example that drying after soaking does have beneficial effects for germination and that this is accepted general knowledge in the field.

RESPONSE TO NEW ISSUES RAISED BY THE EXAMINER

Issue Nos. 1-3: Submitted in response to the Examiner's Answer is an amendment to claim 1 which introduces the limitation that the dark place sufficiently dark to prevent the plant seed to germinate. Claim 1 has also been amended to recite that the plant seed is allowed to stand in the watery condition for a sufficient period of time to inhibit defective germination or rosette formation of the plant seed. These changes were added to avoid the indefiniteness issue raised by the Examiner in the sentence bridging pages 3 and 4 of the Examiner's Answer.

In addition these changes to claim 1 were in part responsive to the new manner in which the Examiner has concluded that the "vat/dish" and palletizing equipment of Badiu et al. constitute a "dark place."

Appellant's claim 1, as amended, requires that the plant seed be left to stand in a highly watery condition at a low temperature in a dark place for a sufficient period of time to inhibit defective germination or rosette formation of the plant seed with the dark place being sufficiently dark to prevent the plant seed from germinating.

It is submitted that Badiu et al. does not teach whether or not the "vat" is dark or light. In any event it is noted that the seeds are only immersed in the vat 6-8 hours which is far too short of a period of time to take precautions (i.e. control the light) to prevent the seeds from germinating.

Likewise, it would not seem that the seeds would be in the palletizing equipment for a long enough period of time to precautions (i.e. control the light) to prevent the seeds from germinating.

<u>Issue No. 4:</u> The Examiner's position that "it is notoriously old and well-known in the art that all kinds of different plant species and morphologies in bib water to germinate and all will stop germinating when dried" is not believed to be germane.

The present appeal does not have anything to do with stopping germination of plant species and morphologies by drying.

<u>Issue Nos. 5-6:</u> The Examiner has continued to rely upon Smith as teaching that drying seeds after soaking "helps" or "benefits" germination. This is not the case.

Smith <u>does not</u> teach that drying seed after soaking results increased germination capacity over seeds that are not first soaked.

That is, the teachings of Smith do not encompass a teaching that if a sample of seeds were divided in to two portions and one portion was first soaked and then dried, that portion of seeds would have a better or improved germination rate over the portion that was not soaked and dried.

The passage of Smith that addresses increased germination capacity due to drying is as follows:

Where soaking reduced germination, seed drying after soaking resulted in increased germination capacity, possibly because membrane integrity and embryo viability were restored upon drying.

A close review of this passage in context with the entire text of Smith reveals that the "increased germination capacity" referred to is in reference to (i.e. qualified by) the "reduced germination" that was attributed to the soaking process.

This is clear because Smith teaches that "membrane integrity and embryo viability were restored upon drying." (Underlying added).

That is, the reduced germination that was associated with soaked seeds was increased when the soaked seeds were dried and the membrane integrity and embryo viability were "restored" to their original conditions. There is no teaching that the improved germination attributed to drying was an improvement over seeds which were not soaked at all.

Smith does not teach that drying seed after soaking results increased germination capacity over seeds that are not first soaked.

CONCLUSION

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For the reasons advanced above and those advanced in appellants' Brief on Appeal, it is submitted that the rejection of claim 1 as being obvious under 35 U.S.C. §103(a) over Badiu et al. in view of Smith is improper because the examiner has not met her burden of establishing a *prima facie* case of obviousness.

Moreover, for the reasons advanced above and in appellant's Brief on Appeal, appellant respectfully contends that the rejection of claims 2 and 3 as being obvious under 35 U.S.C. §103(a) over Badiu et al. in view of Evans et al. is improper because the examiner has not met her burden of establishing a *prima facie* case of obviousness.

Furthermore, for the reasons advanced above and in appellant's Brief on Appeal, appellant respectfully contends that the rejection of claim 1 as being obvious under 35 U.S.C. §103(a) over Job et al. in view of Smith is improper because the examiner has not met her burden of establishing a prima facie case of obviousness.

Finally, for the reasons advanced above and in appellant's Brief on Appeal, appellant respectfully contends that the rejection of claims 2 and 3 as being obvious under 35 U.S.C. §103(a) over Badiu et al. in view of Evans et al. is improper because the examiner has not met her burden of establishing a *prima facie* case of obviousness.

Reversal of each of the rejections on appeal is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of

time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,

Michael S. Gzybowski

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TRANSMITTAL LETTER (General - Patent Pending)

Docket No. 121056-028

| In Re Application Of: | | |
|-----------------------|-------------|----------|
| Yasushi KOHNO | | |
| Serial No | Filing Date | Fyaminer |

November 5, 2001

Group Art Unit

Andrea Valentini

3643

Title:

METHOD OF PREVENTING DEFECTIVE GERMINATION OR ROSETTE FORMATION OF SEED

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith is:

10/007,186

Amendment **Amendment Transmittal** Reply Brief (Original and two copies)

RECEIVED AUG 1 1 2003 GROUP 3600

in the above identified application.

- No additional fee is required. \boxtimes
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is attached.

The Director is hereby authorized to charge and credit Deposit Account No.

12-2136

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Dated: July 30, 2003

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Michael S. Gzybowski

Typed or Printed Name of Person Mailing Correspondence

CC:

AMENDMENT TRANSMITTAL LETTER (Large Entity) Docket No. Applicant(s): Yasushi KOHNO 121056-028 Serial No. Filing Date Examiner **Group Art Unit** 10/007,186 November 5, 2001 Andrea Valentini 3643 Invention: METHOD OF PREVENTING DEFECTIVE GERMINATION OR ROSETTE FORMATION OF SEED TO THE COMMISSIONER FOR PATENTS: Transmitted herewith is an amendment in the above-identified application. The fee has been calculated and is transmitted as shown below. **CLAIMS AS AMENDED** HIGHEST # **CLAIMS REMAINING** NUMBER EXTRA **ADDITIONAL** RATE AFTER AMENDMENT PREV. PAID FOR **CLAIMS PRESENT** FEE **TOTAL CLAIMS** 0 x \$18.00 \$0.00 3 20 INDEP, CLAIMS 1 0 \$84.00 \$0.00 X Multiple Dependent Claims (check if applicable) \$0.00 \$0.00 TOTAL ADDITIONAL FEE FOR THIS AMENDMENT No additional fee is required for amendment. ☐ Please charge Deposit Account No. in the amount of RECEIVED A check in the amount of to cover the filing fee is enclosed. The Director is hereby authorized to charge payment of the following fees associated with this AUG 1 1 2003 communication or credit any overpayment to Deposit Account No. 12-2136 **GROUP 3600** Any additional filing fees required under 37 C.F.R. 1.16. Any patent application processing fees under 37 CFR 1.17. Michael 56 Dated: July 30, 2003 I certify that this document and fee is being deposited on July 30, 2003 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Signature of Person Mailing Correspondence

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